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Server Solution

Thunder h2000M

S3992

Quad Core Ready

AMD 64 Opteron

DP AMD Rev.F Opteron™ Platform

- Dual 1207-pin Socket
- Supports up to 2 x AMD® Opteron ™ Rev. F 2000 series Dual Core/ Quad-core processors
- Up to 1.0GHz Hyper-Transport link support
- Broadcom BCM5780 (HT-2000) + BCM5785 (HT1000) chipset
- Total sixteen(16) 240-pin 1.8-Volt DDRII DIMM sockets.
- Support DDRII 533/667MHz Registered memory
- (2) x16 PCI Express slots (w/ x8 link)
- (3) PCI-X 64-bit 133/100MHz slots + (1) PCI 32-bit 33MHz slot
- (2) GbE LAN + (1) 10/100 FE LAN
- (1) PCI-X TYAN TARO™ SO-DIMM slot supports U320 SCSI or SAS/SATA II/SATA

(Specifications are subject to change without notice. Items pictured may only be representative.)

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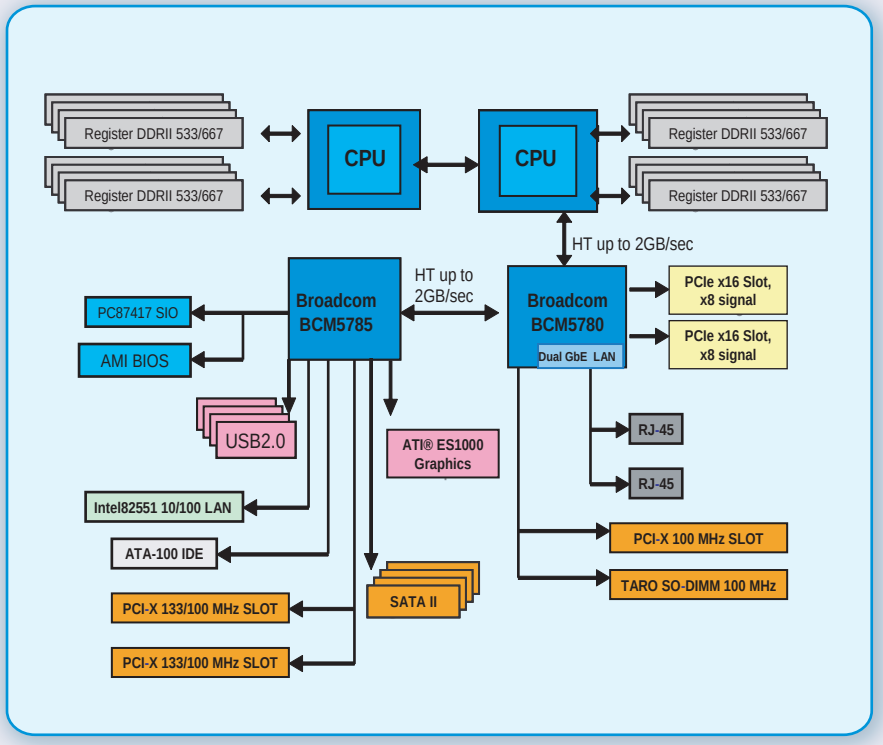
TOP View



S P E C I F I C A T I O N S

Processors
- Dual 1207-pin Socket
- Supports up to 2 x AMD® Opteron ™ Rev. F 2000 series Dual Core/ Quad-core processors
- Up to 1.0GHz Hyper-Transport link support
- Integrated 128-bit DDR Memory Controller

Chipset
- ServerWorks BCM5780(HT2000) +
- BCM5785(HT1000) chipset
- National PC87417 Super I/O chip

Memory
- 128-bit dual channel memory bus
- Total sixteen(16) 240-pin 1.8-Volt DDRII DIMM sockets (8 on CPU1 and 8 on CPU2)
- Supports up to DDRII 667MHz
- Registered, ECC module supported

Expansion Slots
- (2) PCI Express x16 slots (each w/ x8 signal)
- (2) PCI-X 133/100MHz slot
- (1) PCI-X 100MHz slot
- (1) PCI 32-bit 33MHz, v2.3 compliant slot
- One (1) Tyan ¡§TARO¡¨ SO-DIMM socket

System Management
- (2) EMC6D103 H/W monitor chips
- Eight (8) 3+1-pin fan headers support tachometer monitoring, six (6) of them with smart FAN control
- Temperature and voltage monitoring
- Watchdog timer support

Integrated I/O
- One floppy connector
- One IDE connector
- Four USB 2.0 ports (2 at rear, 2 via cable)
- Two COM port (1 at rear, 1 via cable)
- Tyan 2 x 9 front-panel pin header
- Tyan 2 x 6 front-panel pin header for LAN/ID LED
- Tyan 2 x 7 pin header (2.0mm) for FAN tachometer and PWM.
- 2 x 25 connector for optional Tyan IPMI SMDC

Back Panel I/O ports
- Stacked PS/2 Mouse & Keyboard ports
- Stacked 2 USB ports and 1 10/100 RJ45 ports
- One 9-pin COM port
- One 15-pin VGA port
- Two side-by-side RJ-45 ports

Integrated Video Controller
- ATI ES1000 controller
- 32MB DDR frame buffer

Integrated Enhanced IDE Controller
- Single-channel master mode supports up to two IDE devices
- Supports IDE drives and ATAPI-compliant devices

Integrated SATA Controller
- Supports four SATA-II ports running at 1.5Gb/s
- RAID 0/1/5/10 supported

Integrated LAN Controller
- Dual GbE LAN (from BCM5780)
  - Embedded in BCM5780
  - Two 10/100/1000 RJ-45 LAN ports w/ LED
- One Intel i82551QM fast Ethernet controller
  - One 10/100 RJ-45 LAN port w/ LED
  - Operating on 32bit/33MHz PCI bus

Optional modules
- M3291, IPMI 2.0 Remote System Mgmt card
  - Renesas H8S2167 BMC controller
  - BT, KCS, Logging support
  - IPMI-over-LAN
  - Remote power on/off and reset
- M7901/M7902, Ultra 320 SCSI TARO card
  - Adaptec AIC-7901/7902 single/dual-channel Ultra320 SCSI controller
  - Adaptec HostRAID 0, 1, 10 supported
- M9000 SAS/SATA II TARO card
  - Adaptec AIC-9405/9410 SAS controller
  - Supports up to 4-port (M9000-5) and 8-port (M9000-10) SAS & SATA running at 3.0Gb/s
  - Adaptec HostRAID 0, 1 & 10 supported

BIOS
- AMI BIOS on 8Mbit LPC Flash ROM
- ACPI 2.0 and SRAT support
- PXE via Ethernet, USB device boot
- SMBIOS 2.3.1, BBS 1.1 compliant
- Headless Operation via serial console redirect
- 48-bit LBA Support

Form Factor
- Extended ATX footprint (13¡¨ x 12¡¨)
- EPS12V/ATX12V universal power connectors

Power
- Onboard dual 4-phase VRM
- EPS12V/SSI v3.51 (24 + 8) power connectors

Regulatory
- FCC Class B (DoC)
- European Community CE (DoC)

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